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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/732,975

12/11/2003

Philip Tousignant

200312987-1

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7590

12/15/2005

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EXAMINER

ESTRADA, ANGEL R

ART UNIT

PAPER NUMBER

2831

DATE MAILED: 12/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/732,975	Applicant(s) TOUSIGNANT ET AL.	
	Examiner Angel R. Estrada	Art Unit 2831	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
4a) Of the above claim(s) 36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14, 17-31 and 33-35 is/are rejected.
- 7) ☒ Claim(s) 15, 16 and 32 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I (Claims 1-35) in the reply filed on September 14, 2004 is acknowledged. The traversal is on the ground(s) that because claims of Group I are similar to those of Group II, a search for Group I necessarily includes a search of Group II. This is not found persuasive because the search of Group I is different of the search of Group II. Group I is a cable routing system comprising first and second channels and a plurality of teeth; Group II is a computer comprising a computer housing with a first and second channel members. Because these inventions are distinct for the reasons given in the previous office action and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 33-35 are rejected under 35 U.S.C. 102(b) as being anticipated by Saeki et al (US 6,444,903, hereinafter Saeki).

Regarding claim 33, Saeki discloses a mechanism for routing a plurality of cables (see figure 5), said mechanism comprising: means (10) for routing said cables (4) in a first direction (see figure 5), means (14) for routing said cables (4) in a second direction, means (15) for increasing a bend radius of said plurality of cables while transitioning from said first direction routing means to said second direction routing means (see figure 5).

Regarding claim 34, Saeki discloses the mechanism (see figure 5) further comprising: means (19) for covering cables routed in said first direction routing means (10); and means (17,18) for securing said covering means to said first direction routing means (see figure 5).

Regarding claim 35, Saeki discloses the mechanism (see figure 5) further comprising: means (23) for covering cables routed in said second direction routing means (14); means (21,22) for securing said covering means to said second direction routing means (see figure 5).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-7, 9, 12-14, 17-26, 30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saeki et al (US 6,444,903, hereinafter Saeki) in view of Mandry et al (US 6,389,211; hereinafter Mandry)

Regarding claim 1, Saeki discloses a cable routing system (see figure 5) comprising: a first channel (10) for routing at least one of a plurality of cables (2) in a first direction (see figure 5); a second channel (14) for routing said at least one cable (2) in a second direction (see figure 5); but Saeki lacks a plurality of teeth spaced apart from one another and disposed in one of said first channel and said second channel. Mandry teaches a plurality of teeth (125) being positioned on a mounting surface (see figure 1), said teeth (125) positioned to create spaces in-between said plurality of cables (see figure 1) before said at least one cable transitions from a first direction to said second direction (see figure 4). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make Saeki's with a plurality of teeth spaced apart from one another as taught by Mandry to provide means for separating the cables.

Regarding claim 2, Saeki discloses the system (see figure 5) wherein said first channel (10) comprises: a base (7); and a plurality of sides (8,9) projecting outward from said base (see figure 5).

Regarding claim 3, Saeki discloses the system (see figure 5) wherein said second channel (14) comprises: a base (11); and a plurality of sides (12,13) projecting outward from said base (see figure 5).

Regarding claim 4, Saeki discloses the system (see figure 5) wherein said first channel (10) and said second channel (14) are positioned next to each other to create a cable bend area (see figure 5) wherein said bend area is sized to allow said cables (2) to maintain said spaces as said cables (2) transition from said first direction to said second direction (see figure 5).

Regarding claim 5, Saeki discloses the system (see figure 5) wherein said second channel (14) further comprises: a cover (23) operating to cover said second channel base (see figure 5).

Regarding claim 6, the modified Saeki discloses the system (see figure 5) wherein said teeth (125 of Mandry) are located within said second channel (14) and project outward from said second channel base (see figure 1).

Regarding claim 7, the modified Saeki discloses the system (see figure 5) wherein said teeth (125 of Mandry) are located in said first channel (10) next to said bend area (see figure 5) and said teeth (125 of Mandry) project outward from said first channel base (see figure 5).

Regarding claim 9, Saeki discloses the system (see figure 5) wherein said first channel (10) further comprises: a cover (19) operative to cover said base (see figure 5).

Regarding claim 12, the modified Saeki discloses the system (see figure 5) wherein said plurality of teeth (125 of Mandry) extend diagonally outward from said first channel base (10).

Regarding claim 13, Saeki discloses the system (see figure 5) wherein said first channel (10) and said second channel (14) are positioned at a right angle with respect to one another thereby creating a right angle bend (see figures 3d, 4 and 5).

Regarding claim 14, Saeki discloses the system (see figure 5) wherein said first channel (10, vertical direction) and said second channel (10, horizontal direction) can be mounted inside of an electronics enclosure (since the channel can be mounted on any supporting surface, such as a wall of an electronic enclosure).

Regarding claim 17, Saeki discloses the system (see figure 5) wherein said first channel (10) is multisectional (see figure 5).

Regarding claim 18 the modified Saeki discloses the claimed invention except for said teeth (26) being made of galvanized steel. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the teeth of galvanized steel, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 227 F.2d, 125 USPQ 416 (CCPA 1960).

Regarding claim 19, Saeki discloses a method for routing cables (see figure 5) comprising: defining a first channel (10); defining a second channel (12); but Saeki lacks a plurality of teeth in one of said first channel and said second channel. Mandry teaches a method for routing cables comprising disposing a plurality of teeth (125) in one of said first channel and said second channel (see figures 4), wherein said teeth (125) are spaced apart from one another to create a plurality of cable paths (see figure 4), and running said cables (see figure 4) in said first channel, through said cable paths, and into said second channel (see figure 4). It would have been obvious to one of

ordinary skill in the art at the time the invention was made to make Saeki's method with the steps of comprising a plurality of teeth in one of said first channel and said second channel, wherein said teeth are spaced apart from one another as taught by Hodges to provide means for separating the cables and create independent cable paths.

Regarding claim 20, Saeki discloses the method wherein said first channel (10) comprises: a base (7); and a plurality of sides (9, 8; see figure 1).

Regarding claim 21, Saeki discloses the method further comprising: positioning said first channel (10) and said second channel (14) near one another thereby creating an angle bend for said cables (see figure 5) and a cable bend area (15) wherein said bend area allows said cables (4) to maintain cable spacing as said cables transition from said first channel to said second channel (see figure 5); and mounting said plurality of teeth (135 of Mandry) in said first channel next to said angle bend (see figure 5).

Regarding claim 22, the modified Saeki discloses the method wherein said running said cables step (see figure 4); comprise running said cables (4) into said first channel (10); assigning each cable of said plurality of cables to at least one cable path of said plurality of cable paths (as taught by Mandry); threading said cables (4) through said assigned cable paths (as taught by Mandry); running said cables from said assigned cable paths into said angle bend (see figure 5); and running said cables from said angle bend into said second channel (see figure 5).

Regarding claim 23, the modified Saeki discloses the method further comprising: disposing a plurality of teeth (26) inside of said second channel (10), wherein said teeth (125 of Mandry) are spaced apart from one another thereby creating a plurality of second channel cable paths (as taught by Mandry); mounting said plurality of teeth in

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said second channel near said angle bend (see figure 5); and said running said cables (4) from said angle bend into said second channel step comprises: assigning each cable of said cables (4) in said angle bend to at least one of said plurality of second channel cable paths (see figure 5), and running said cables from said angle bend through said assigned second channel cable paths into the remainder of said second channel (see figure 5).

Regarding claim 24, Saeki discloses an apparatus (see figures 5) for increasing the bend radius of a plurality of cables (4) comprising: a first channel (10) having a base and a plurality of sides (see figure 5), and a second channel (14) having a base, a plurality of sides (see figure 5), wherein said first channel and said second channel are positioned to create a cable bend area (see figure 5) wherein said bend area is sized to allow said cables to maintain said spaces as said cables transition from said first channel to said second channel (see figure 5); but Saeki lacks a plurality of teeth spaced apart from one another and disposed in one of said first channel and said second channel. Mandry teaches an apparatus for routing cables comprising a plurality of teeth (125) being positioned on a mounting surface (see figure 1), said teeth (125) spaced apart from one another operating to create spaces in between said plurality of cables (see figure 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make Saeki's apparatus with a plurality of teeth spaced apart from one another operating to create spaces in between said plurality of cables as taught by Mandry to provide means for separating the cables.

Regarding claim 25, Saeki discloses the apparatus (see figure 5) wherein said first channel (10) is mounted in an orientation that is vertical with respect to said second

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channel (14) so that a right angle is formed between said first channel and said second channel (see figure 5).

Regarding claim 26, the modified Saeki discloses the apparatus (see figures 5) wherein said teeth (125 of Mandry) are mounted next to said cable bend area (see figure 5).

Regarding claim 30, the modified Saeki discloses the claimed invention except for at least one of said plurality of teeth is shaped differently from the remaining plurality of teeth. It would have been an obvious matter of design choice to make at least one of said plurality of teeth's shape differently from the remaining plurality of teeth, since such a modification would have involved a mere change in the shape of a component. Where the instant specification and evidence of record fail to attribute any significance (novel or unexpected results) to a particular shape, a change of shape is generally recognized as being within the level of ordinary skill in the art. *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

Regarding claim 31, the modified Saeki discloses the claimed invention except for at least one of said plurality of teeth is sized differently from the remaining plurality of teeth. It would have been an obvious matter of design choice to make at least one of said plurality of teeth's size differently from the remaining plurality of teeth, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 220 F.2d 459, 105 USPQ 237 (CCPA 1955).

4. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saeki et al (US 6,444,903, hereinafter Saeki) in view of Ferris et al (US 6,708, 918; hereinafter Ferris)

Regarding claim 1, Saeki discloses a cable routing system (see figure 5) comprising: a first channel (10) for routing at least one of a plurality of cables (2) in a first direction (see figure 5); a second channel (14) for routing said at least one cable (2) in a second direction (see figure 5); but Saeki lacks a plurality of teeth spaced apart from one another and disposed in one of said first channel and said second channel. Ferris teaches a cable routing system comprising plurality of teeth (100a, 100b, 100c) being positioned on a mounting surface (see figure 7), said teeth (100a, 100b, 100c) positioned to create spaces in-between a plurality of cables (see figure 6) before said at least one cable transitions from a first direction to said second direction (see figure 6). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make Saeki's with a plurality of teeth spaced apart from one another as taught by Ferris to provide means for separating the cables.

Regarding claim 2, Saeki discloses the system (see figure 5) wherein said first channel (10) comprises: a base (7); and a plurality of sides (8,9) projecting outward from said base (see figure 5).

Regarding claim 3, Saeki discloses the system (see figure 5) wherein said second channel (14) comprises: a base (11); and a plurality of sides (12,13) projecting outward from said base (see figure 5).

Regarding claim 4, Saeki discloses the system (see figure 5) wherein said first channel (10) and said second channel (14) are positioned next to each other to create a

cable bend area (see figure 5) wherein said bend area is sized to allow said cables (2) to maintain said spaces as said cables (2) transition from said first direction to said second direction (see figure 5).

Regarding claim 5, Saeki discloses the system (see figure 5) wherein said second channel (14) further comprises: a cover (23) operating to cover said second channel base (see figure 5).

Regarding claim 6, the modified Saeki discloses the system (see figure 5) wherein said teeth (100a, 100b and 100c of Ferris) are located within said second channel (14) and project outward from said second channel base (see figure 1).

Regarding claim 7, the modified Saeki discloses the system (see figure 5) wherein said teeth (100a, 100b and 100c of Ferris) are located in said first channel (10) next to said bend area (see figure 5) and said teeth (100a, 100b and 100c of Ferris) project outward from said first channel base (see figure 5).

Regarding claim 8, the modified Saeki discloses the system (see figure 5) wherein said teeth (100a, 100b and 100c of Ferris) are mounted to a teeth base (110 of Ferris) wherein said teeth base (110 of Ferris) is mounted to said first channel base (column 3 lines 35-45 of Ferris).

5. Claims 10, 11 and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saeki et al (US 6,444,903, hereinafter Saeki) in view of Mandry et al (US 6,389,211; hereinafter Mandry) as applied in claims 7 and 24, respectively, and further in view of Klug (US 5,161,580).

Regarding claim 10, the modified Saeki discloses the claimed invention except for the first channel having a plurality of base fastening devices attached to said base; a plurality of cover fastening devices attached to said cover; and wherein at least one of said cover fastening devices is operative to secure at least one of said plurality of covers to said base by fastening to at least one of said plurality of base fastening devices. Klug teaches a cable routing system comprising a first channel (see figure 2) comprising a base (46) having a plurality of base fastening device (54) and a cover having a plurality of cover fastening device (54), wherein at least one of said cover fastening device is operative to secure at least one of said plurality of base fastening device (see figure 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide to the modified Saeki's first channel with a plurality of base fastening device attached to the base and a plurality of cover fastening device attached to said cover to secure the cover to the base as taught by Klug to provide means for firmly securing the cover to the base.

Regarding claim 11, the modified Saeki discloses the system (see figure 5) wherein said plurality of covers (19, 23) comprise one or more of: a clear cover; an opaque cover; a vented cover; and any combination of said clear, opaque, or vented cover (see figure 5).

Regarding claim 27, the modified Saeki discloses the claimed invention except for the first channel having a plurality of base fastening devices attached to said base; a plurality of cover fastening devices attached to said cover wherein said plurality of cover fastening devices operate to secure said cover to said base by fastening to said plurality of base fastening devices. Klug teaches a cable routing system comprising a first

channel (see figure 2) comprising a base (46) having a plurality of base fastening device (54) and a cover having a plurality of cover fastening device (54), wherein said plurality of cover fastening devices operate to secure said cover to said base by fastening to said plurality of base fastening devices (see figure 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide to the modified Saeki's first channel with a plurality of base fastening device attached to the base and a plurality of cover fastening device attached to said cover to secure the cover to the base as taught by Klug to provide means for firmly securing the cover to the base.

Regarding claim 28, the modified Saeki discloses the apparatus (see figure 5) wherein said first channel (10) further comprises: a plurality of teeth (125 of Mandry) mounted inside of said first channel spaced apart from one another projecting outward from said first channel base (as taught by Mandry) wherein said teeth (125) are operative to space said cables apart as said cables run through said first channel (as taught by Mandry).

Regarding claim 29, the modified Saeki discloses the claimed invention except for the second channel having a plurality of second channel base fastening devices attached to said second channel base; and a plurality of cover fastening devices attached to said cover wherein said cover fastening devices is operate to secure said cover to said second channel base by fastening to said second channel base fastening devices. Klug teaches a cable routing system (10) comprising a second channel (see figure 1) comprising a base (18) having a plurality of base fastening device (44) and a cover (26) having a plurality of cover fastening device (45), wherein at least one of said cover fastening device (45) is operative to secure at least one of said plurality of base

fastening device (see figure 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide to the modified Saeki's second channel with a plurality of base fastening device attached to the base of the second channel and a plurality of cover fastening device attached to said cover to secure the cover to the base of the second channel as taught by Klug to provide means for firmly securing the cover to the base.

Allowable Subject Matter

6. Claims 15, 16 and 32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance: The primary reasons for the indication of the allowability of claims 15, 16 and 32 are:

Regarding claims 15 and 16, the prior art does not teach or fairly suggest in combination with the other claimed limitations a gasket positioned between said channels and said electronics enclosure wherein said gasket is comprised of a material that is compatible with electromagnetic interference specifications of said electronics enclosure.

Regarding claim 32, the prior art does not teach or fairly suggest in combination with the other claimed limitations a gasket positioned in-between said channels and said computer enclosure wherein said gasket is made of a material that operates to minimize electromagnetic interference.

These limitations were found in claims 15, 16 and 32, and are neither disclosed nor taught by the prior art of record, alone or in combination.

Response to Arguments

7. Applicant's arguments with respect to claims 1-36 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Merriken et al (US 5,734,777), Adapathya et al (US 6,546,181) and Benscoter (US 4,163,572) disclose a cable management system.

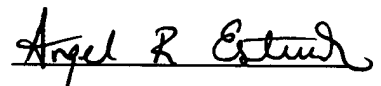
9. Any inquiry concerning this communication should be directed to Angel R. Estrada at telephone number (571) 272-1973. The Examiner can normally be reached on Monday-Friday (8:30 -5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on (571) 272-2800 Ext: 31. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

November 29, 2005



Angel R. Estrada
Patent Examiner
Unit: 2831